ABSTRACT OF THE DISCLOSURE

The present invention provides a semiconductor device, comprising a semiconductor substrate, a gate insulating film formed on the semiconductor substrate, a gate electrode formed on the gate insulating film, and source-drain diffusion layer formed within the semiconductor substrate in the vicinity of the gate electrode. A silicide film is formed on each of the gate electrode and the source-drain diffusion layer. The silicide film positioned on the gate electrode is thicker than the silicide film positioned on the source-drain diffusion layer. The present invention also provides a method of manufacturing a semiconductor device, in which a gate electrode is formed on a gate insulating film covering a semiconductor substrate, followed by forming a source-drain diffusion layer within the semiconductor substrate. Then, atoms inhibiting a silicidation are selectively introduced into the source-drain diffusion layer, followed by forming a film of a metal having a high melting point on each of the gate electrode and the source-drain diffusion layer. The film of the high melting point metal is converted into a silicide film to form silicide films selectively on the gate electrode and the source-drain diffusion layer. The particular method permits retarding the formation of the silicide film on the source-drain diffusion layer so as to make

it possible to obtain a semiconductor device of a salicide structure in which the silicide film formed on the gate electrode is thicker than the silicide film formed on the source-drain diffusion layer.